JOURNAL OF APPLIED BEHAVIOR ANALYSIS 2001, **34,** 221–224 NUMBER 2 (SUMMER 2001)

PROXIMAL AND DISTAL EFFECTS OF PLAY ON CHILD COMPLIANCE WITH A BRAIN-INJURED PARENT

JOSEPH M. DUCHARME
UNIVERSITY OF TORONTO AND
HAMILTON HEALTH SCIENCES CORPORATION

AND

NANCY RUSHFORD
HAMILTON HEALTH SCIENCES CORPORATION

Individuals with brain injury may experience severe cognitive and other impairments. For brain-injured parents, such deficits may be associated with child behavior problems, including noncompliance. We assessed the effects of a play period conducted by a brain-injured father on the compliance of his son, who had become uncooperative with his father after the injury. The child consistently demonstrated improved compliance during proximal and distal compliance sessions that followed father–son play periods.

DESCRIPTORS: antecedent intervention, brain injury, compliance, effects of play

Individuals with brain injury may experience a broad range of cognitive, emotional, and physical sequelae that impede daily functioning. These impediments are particularly devastating to brain-injured parents, some of whom have difficulty executing simple parenting skills and may respond to their children's problem behavior with various forms of maltreatment (Devany Serio, Kreutzer, & Gervasio, 1995).

Children of brain-injured parents often become oppositional toward or avoid the injured parent. In a survey of 24 families in which one parent had a brain injury, Pessar, Coad, Linn, and Willer (1993) found that the noninjured parents reported increased emotional or relationship problems and acting out by children with the injured parent in 22 families.

The present case involved a brain-injured father who was experiencing difficulties with his son's behavior. Due to cognitive and physical impairments, he rarely interacted with his son. These impairments also precluded involvement in traditional parent training interventions. We therefore employed a simple approach that involved prompting parent–child play activities to increase positive interactions. We evaluated the effects of play on the child's compliance during two discrete sessions following each play interaction.

METHOD

Participants and Setting

The parent was a 45-year-old man with a brain injury (assessed as moderate to severe) who had been referred for treatment of his son's behavior problems. The brain injury, acquired in a motorcycle accident 5 years before the study, resulted in memory, reading, concentration, and physical impairments. The child was a 10-year-old boy with a learning disability. His relationship with his father had deteriorated since his father's ac-

This study was funded by the Ontario Neurotrauma Initiative. We thank Terry Spencer and Patti Leonard for administrative support.

For reprints, contact J. M. Ducharme, Department of Human Development and Applied Psychology, University of Toronto (OISE), 252 Bloor Street West, Toronto, Ontario, M55 IV6 Canada.

cident, resulting in avoidance and noncompliance. All sessions took place in the kitchen or family room of the house.

Response Measurement and Reliability

The child's compliance was defined as initiation of the desired response within 10 s of the request and completion within 40 s. Throughout all phases, compliance was measured during two daily 10-min sessions conducted in the late afternoon. The first session (proximal) was conducted 30 min before the second session (distal). Four requests were selected because they were important to the father and yielded low levels of compliance (i.e., "put away your [footwear]," "bring me the [object]," "put the clothes in the hamper," and "put away the book"). Due to his impairments, the father's ability to deliver requests fluctuated. Two to four requests (M = 3) were delivered during compliance sessions.

All compliance sessions were coded by a therapist. Some sessions were videotaped for independent coding by a second observer (25% of sessions not preceded by play and 44% of sessions preceded by play). Both observers agreed on occurrence of compliance or noncompliance for 100% (23 of 23) of the videotaped requests.

Baseline Phases

Two compliance sessions were conducted daily. The father was asked to deliver the four requests to his son as naturally as possible and to do what he normally did following compliance and noncompliance.

Play Phases

Daily compliance sessions were identical to those conducted during baseline phases. However, a 30-min play period immediately preceded the first compliance session. During the play period, the therapist helped the father and son to initiate play activities (e.g., balloon games, painting). All activities required cooperative interactions and close proximity or touching. The father and child participated in several activities during each play period. Due to the father's deficits, the child became excessively directive with his father during interaction. To make interactions more reciprocal, the therapist prompted the father to deliver instructions related to the play activity. The father rarely issued instructions without prompts. The therapist also frequently prompted the father to praise his son for participation; however, the father rarely uttered praise statements.

Multielement Phase

Compliance sessions and play periods were conducted as in previous phases. However, the first compliance session occurred immediately before the play period and the second session immediately followed it.

RESULTS AND DISCUSSION

Compliance levels during all phases are shown in Figure 1. Compliance increased in both proximal and distal compliance sessions whenever play periods preceded the sessions. In the multielement phase, mean compliance was 50% before and 100% after the play period. Overall mean compliance was 44% during sessions not preceded by play and 98% for sessions preceded by play. Across all phases, the father provided no consequences for compliance or noncompliance, other than a quiet "thank you" following 4 of the 48 compliant responses that occurred during compliance sessions preceded by play. No other differences in the father's behavior during sessions preceded and not preceded by play were noted.

Several hypotheses could account for the apparent functional relationship between interactive play and the child's compliance. First, the father may have developed stimulus control over his son's compliance during play periods because his presence signaled

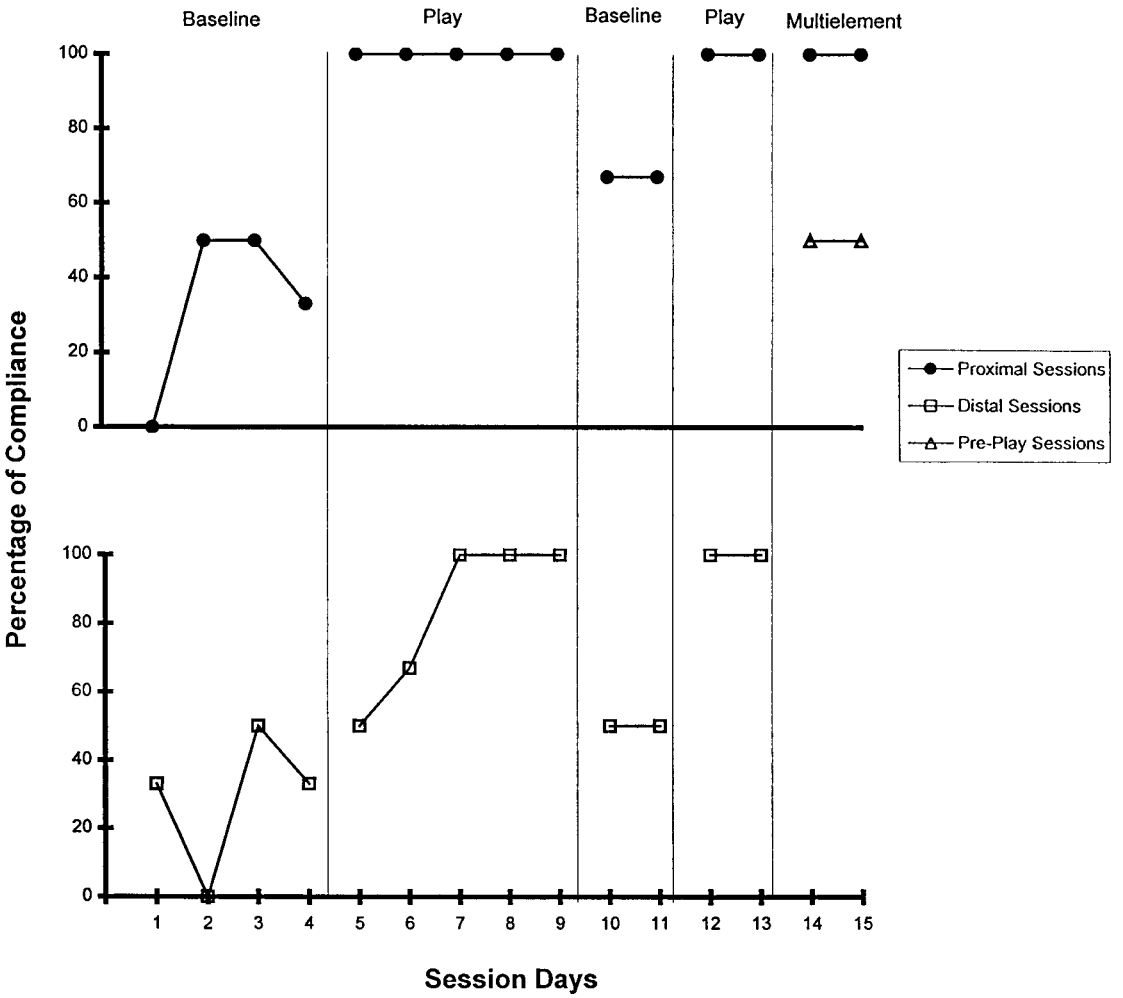

Figure 1. Percentage of compliance across all sessions.

the availability of reinforcement (interactive play) contingent on cooperative and participatory responses. Although compliance did not diminish during compliance sessions that followed play periods despite complete cessation of interactive play, cooperative responding eventually decreased on subsequent no-play days in the continued absence of play, possibly due to eventual extinction.

Behavioral momentum (Mace et al., 1988) provides an alternative account of the findings. The father's play interactions may have provided a form of high-density reinforcement for his son's cooperation with play activities, occasioning persistence of compliance during subsequent compliance sessions.

Finally, play may have served as an establishing operation (Michael, 1993) for compliance. The play periods, which the child appeared to enjoy, may have temporarily enhanced the reinforcing consequences of father–son interactions. The child may have exhibited compliant responses and other forms of proximity seeking to increase the likelihood of continued interactions with the father, despite the fact that the father did not specifically reinforce such responses with praise or continue the playful interactions.

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Received September 12, 2000
Final acceptance February 6, 2001
Action Editor, Dorothea C. Lerman